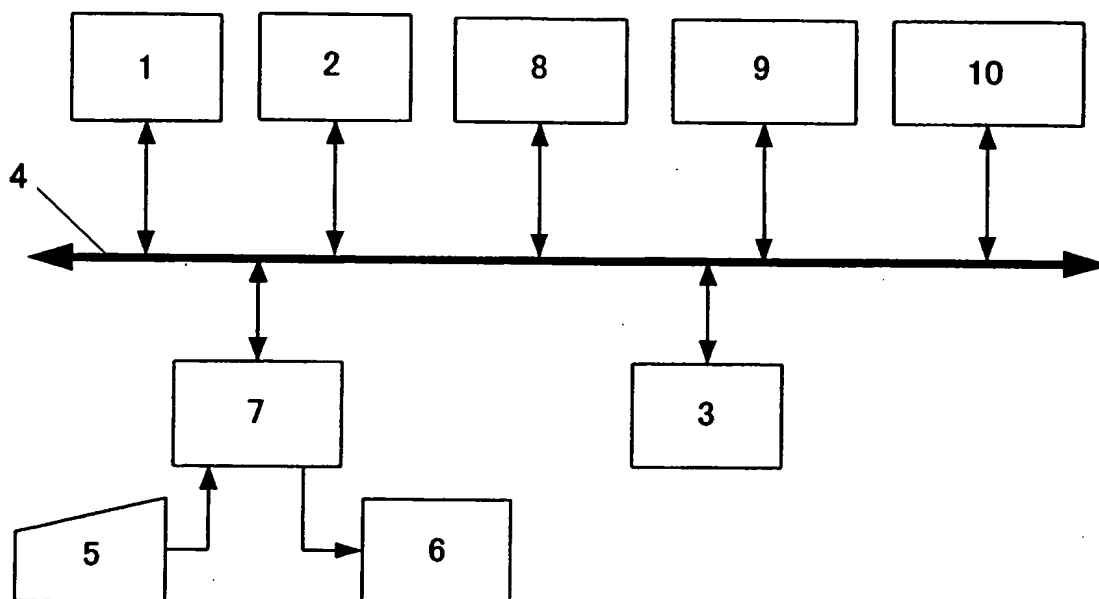


1/5

Fig. 1



2 / 5

Fig. 2

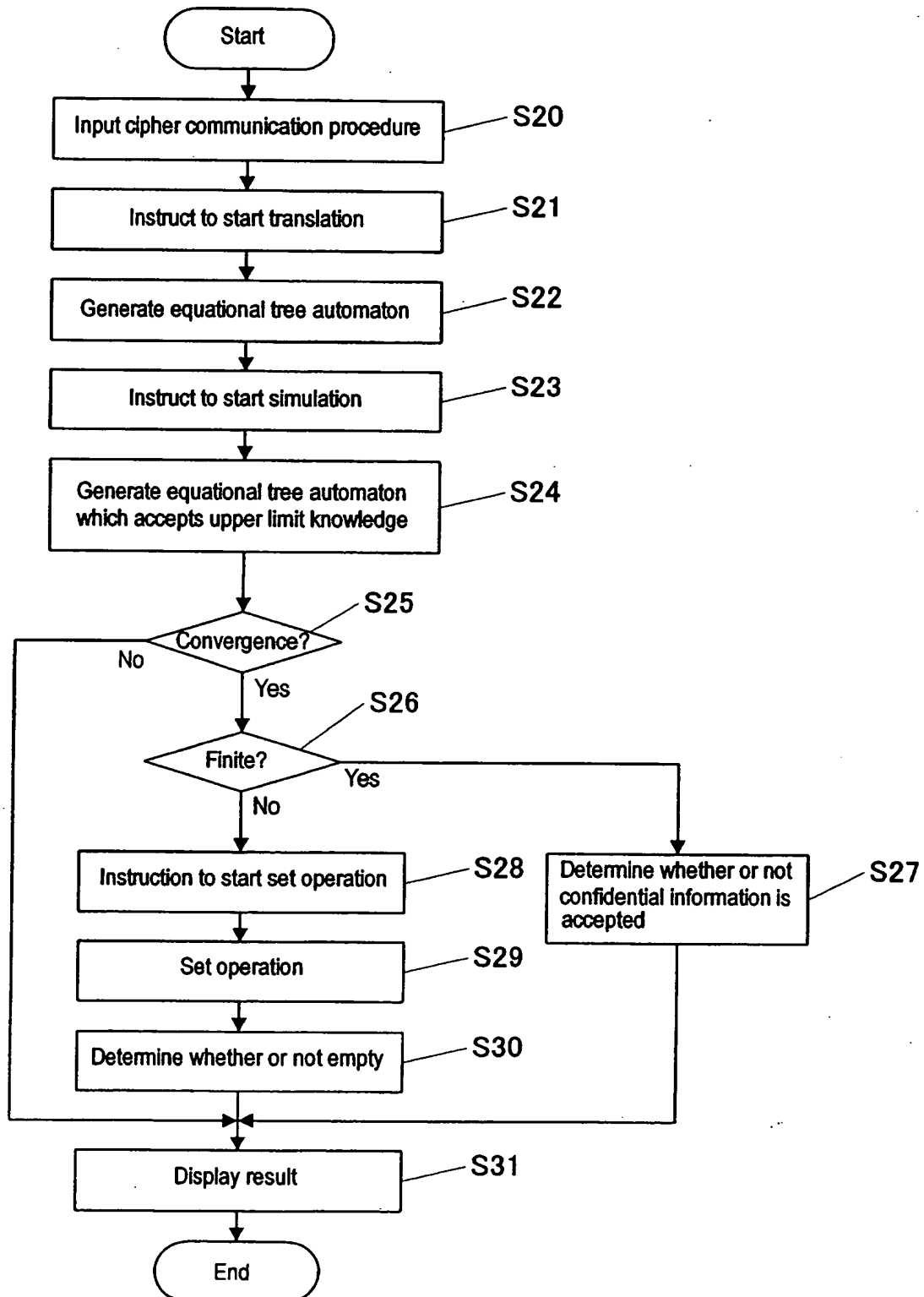
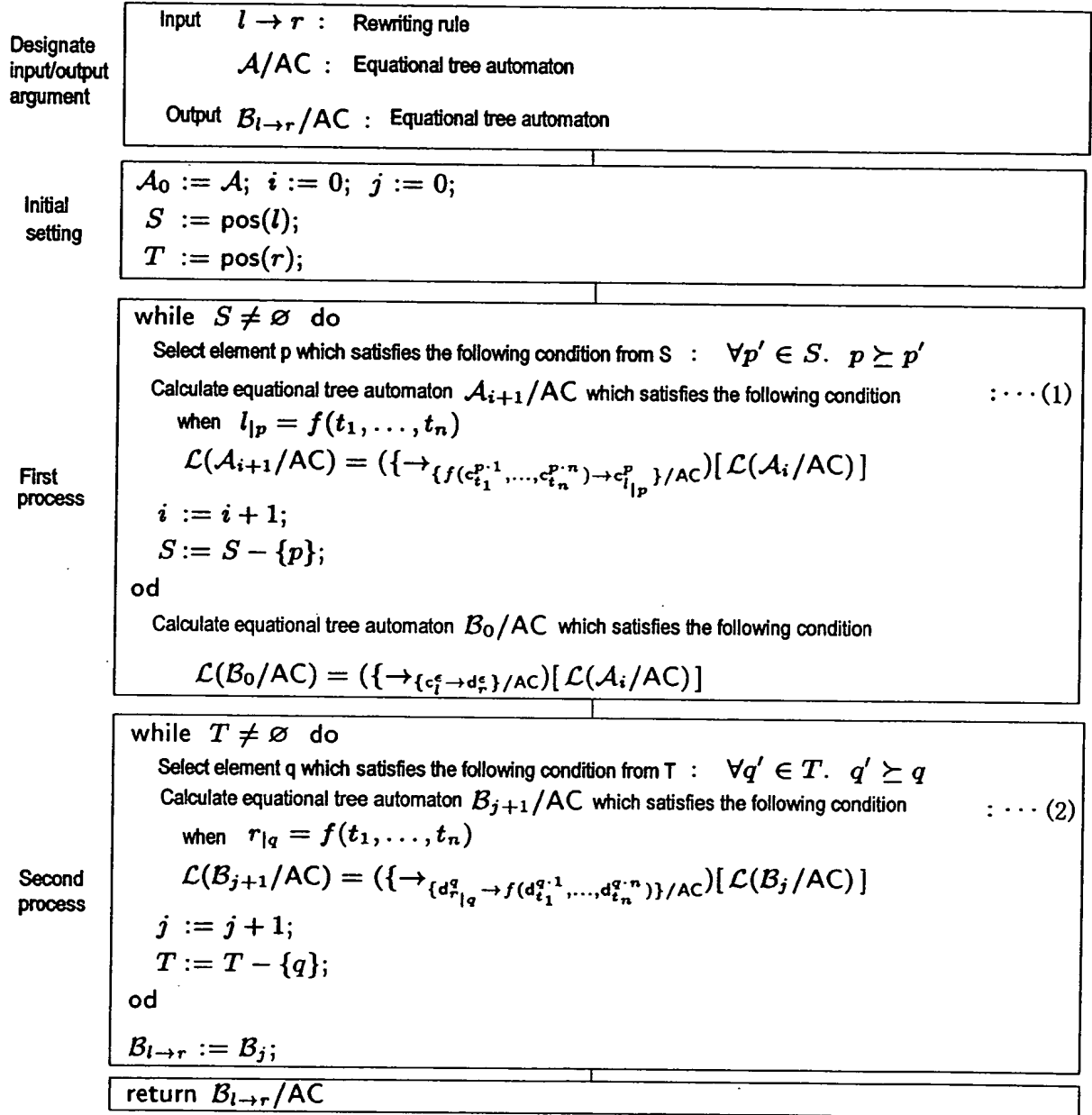


Fig.3



**Fig. 4**

Set	Transition rule	Condition
$\mathcal{R}_\times$	$f((p_1, q_1), \dots, (p_n, q_n)) \rightarrow (p, q)$	$\forall f \in \mathcal{F} \setminus \mathcal{G}$ $\forall f(p_1, \dots, p_n) \rightarrow p \in \mathcal{R}_A$ $\forall f(q_1, \dots, q_n) \rightarrow q \in \mathcal{R}_B$
$\mathcal{R}_{\overline{A}}$	$g((p_1, q_1), (p_2, q_2)) \rightarrow g((p, q_1), q_2)$ $g(p_1, (p_2, q_2)) \rightarrow (p, q_2)$	$\forall g \in \mathcal{G}$ $\forall q_1, q_2 \in \mathcal{Q}_B$ $\forall g(p_1, p_2) \rightarrow p \in \mathcal{R}_A$
	$g((p_1, q_1), (p_2, q_2)) \rightarrow g((r_1, q_1), (r_2, q_2))$ $g(p_1, (p_2, q_2)) \rightarrow g(r_1, (r_2, q_2))$	$\forall g(p_1, p_2) \rightarrow g(r_1, r_2) \in \mathcal{R}_A$
$\mathcal{R}_{\overline{B}}$	$g((p_1, q_1), (p_2, q_2)) \rightarrow g((p_1, q), p_2)$ $g(q_1, (p_2, q_2)) \rightarrow (p_2, q)$	$\forall g \in \mathcal{G}$ $\forall p_1, p_2 \in \mathcal{Q}_A$ $\forall g(q_1, q_2) \rightarrow q \in \mathcal{R}_B$
	$g((p_1, q_1), (p_2, q_2)) \rightarrow g((p_1, r_1), (p_2, r_2))$ $g(q_1, (p_2, q_2)) \rightarrow g(r_1, (p_2, r_2))$	$\forall g(q_1, q_2) \rightarrow g(r_1, r_2) \in \mathcal{R}_B$
$\mathcal{R}_\mathcal{G}$	$g((p, q_1), q_2) \rightarrow g(q_1, (p, q_2))$ $g((p_1, q), p_2) \rightarrow g(p_1, (p_2, q))$ $g(q, p) \rightarrow (p, q)$	$\forall g \in \mathcal{G}$ $\forall p_1, p_2, p \in \mathcal{Q}_A$ $\forall q_1, q_2, q \in \mathcal{Q}_B$

5 / 5

**Fig. 5**